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THE DEMAND FOR MANPOWER IN MALAWI:

Economic Growth, Employment Opportunities and the Utilization of Manpower

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Introduction:

It is a truism to say that people with higher education earn more on the average than those with less education, at least if the same age profile is being considered. This is even more so in the case of developing countries, particularly in those ex-colonial territories, which have recently attained independence. There are several reasons for this. The basic one is that of relative scarcity i.e. those with higher education are in relatively greater demand in relation to their supply than those with lower education. We are all aware that if supply increases more rapidly than demand for any given type of labour then there will be a relative fall in its earnings, other things being equal. So the basic point to bear in mind in explaining the relative earnings is the different historical rates of demand for and growth of different types of labourforce. In the case of open economies i.e. those which are willing to import manpower to meet basic deficiencies, the international market earnings do influence the earnings level of the local labour force. But often institutional mechanisms are devised, and sometimes quite successfully, to ward off the upward spiralling effect of rising international wages on domestic wage levels. Thus apart from the fundamental supply and demand relationship, there are the institutional factors, which determine the basic wage levels and the changes in these. To take an example minimum wages were increased between 1954 and 1966 in Malawi, but until late 1974 there was no change in these, (see Table One), despite increases in price level. Thus institutional factors pushed up the minimum wage between 1953 and 1966, but played no part in changing them since; except in so far as the more rigorous wages and salaries restraint policy implemented since 1970 may have had a depressing effect on these.

Malawi's experience demonstrates that an increase in minimum wages has an adverse effect on aggregate demand for labour (see Table Two A).

The table shows that aggregate employment in Malawi declined in the pre-independence period from a peak of 163,100 in 1957 to 127,800 in 1964. Since the data for the period 1965-1967 (inclusive) are not available, it can only be guessed that employment stagnated over this period. Though there are other reasons for this behaviour of employment two of the principal ones were (a) the rise in the institutional minimum wages, which affected adversely

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employment in all sectors and particularly estate agriculture and (b) stagnation in overall economic activity which was evident during the early sixties. The monetary G.D.P. which is relevant for wage employment purposes in 1964 was only K1.4m. or less than 3% greater than in 1960. Against this, after 1967 and since 1968 in particular, employment has been growing at an average rate of around 10 percent per annum to 1973 (in that year it attained a remarkable rate of 14%). In 1974, the rate of growth in employment dipped from the high level of 1973 to less than 4%. The reasons for this appear to be twofold — the first is the slowing down in economic activity and the second was the increase in Government wages and salaries of 6% affected in October, 1973. Thus these two variables — (a) the level of economic activity and (b) the level of labour prices (costs) — are likely to determine the demand for manpower in the future as they have done in the past. For manpower demand in Malawi on the aggregate level, whereas (a) his direct relationship (b) has an inverse relationship. Though Government policy can control (b), given the openness of the Malawi economy and the importance of its external trade multiplier, it has less control over (a).

All the same Government policy does influence the performance of (a). For the ability of the country to import, particularly the capital goods, depends upon (i) its ability to raise foreign investment and aid funds from abroad and (ii) its export performance. In both respects Malawi performed poorly before Independence and remarkably well after Independence; it is for this reason that it has been able to run consistently a large trade deficit, yet have a positive balance of payments position. It has been able to mobilise funds on a multilateral level (it has substantial IDA involvement in a number of projects) as well as on a bilateral level (Britain, U.S.A., South Africa, West Germany, Denmark and more recently Canada playing an important part as donors). Its export performanca has been based on the expansion of its two traditional exports, namely tobacco and tea and the introduction and expansion of sugar (which ranks third in export value to-day, after the above two, having overtaken groundnuts).

On the imports side as well, there has been a change in the structure of imports. Whereas in 1965 imports of goods mainly for final consumption accounted for 50 percent, by 1973 these had falled to 28 per cent of total imports. This is also, reflected in the changing structure of Malawi's industrial sector. Whereas in 1964 manufactured tea and manufactured tobacco processing together accounted for roughly 50 per cent of total net manufacturing output, by 1971 its share had dropped to less than 20 per cent. During the same period there was a rise in the share of both manufactured consumer goods from 40.1 per cent to 58.8 per cent and of intermediate goods from 6.5 per cent to 20.2 per cent. It is implicit that this has enabled Malawi to

devote an increasing proportion of its foreign exchange earnings to the import of capital goods.

Though international involvement is useful, in the longrun a country has to rely on its own domestic or national savings. It is worthwhile making known that from zero or slightly negative savings, Malawi has raised its savings ratio to 10% of its national income. This is an incredible performance, and is the result of a combination of factors. One has been a high rate of growth — between 1964-1973 Malawi's G.D.P. at factor cost (constant prices) grew on the average at between 6% to 7% p.a. and real per capita income increased at between 3.5 per cent to 4.5 per cent per annum over the same period. The other has been the restraint on consumption imposed by a combination of incomes ind fiscal policies. The wages and salaries policy since 1966 has been designed to restrain increases in employees' incomes and thus has gone a long way to check the growth of consumption. Thus the labour-share in manufacturing output has declined. For instance, from a wage-share of 0.59 in net industrial output in 1964, this had dropped to 0.36 in 1971. At the same time, the introduction of a surtax of 5% and then of 10% (this is on local manufactures; on imports it is 12%) has restrained consumption further.

Basically, it can be said that although there are both external and internal (mainly weather) factors which make forecasting a hazardous occupation, on past performance and given its ability to raise its international credit-worthiness and the domestic (and national) savings ratio as well as its external trade performance, Malawi should be able to attain the 8% rate of economic growth envisaged in the *Statement of Development Policies 1971-80* or Devpol as it is generally known in Malawi.

Future Manpower Demand: On the assumption that Malawi will attain an annual rate of growth of 8% what is likely to be the demand for manpower in the future? If the coefficient of employment is assumed as one, then it could be said that the demand for manpower will grow at 8%. But in order to attain an overall annual rate of growth of 8%, the monetary G.D.P. has to expand much more rapidly — say 12% (the Devpol assumes an increase of 265% in ten years: 1971-80). The experience before Independence was that, except for 1955 and 1956 when the rate of growth of employment was high, subsequently it was either very low or negative. Since 1968, the rate of growth of employment has been much more rapid and the coefficient of employment has been greater than one when measured against real gross *Domestic Product.* But has been except for 1973 less than one when measured against monetary G.D.P. Thus even in a period of a fairly stringent wages and salaries control policy, the monetary G.D.P. elasticity of employment has been less than one. It appears unlikely that it will be greater than one in the future. Basically

the coefficient should not be divorced from changes in wages and salaries. If the present wages and salaries restraint policy is continued, then one can assume that the rate of growth of employment will be greater than the 8% assumed for the G.D.P. — an increase of 10% annually in employment could be envisaged. Thus by 1981-82 Malawi may have roughly 450,000 people in wage employment within the country.

The Demand for High and Intermediate Level Manpower (HILMP)

Apart from the dimensions of overall employment, planners are interested in the demand for High and Intermediate Level Manpower (HILMP) because basically this provides the framework for planning the changes in the input-output matrices of the educational system. The *Manpower Survey 1971* was a major exercise in determining the stock of HILMP. Interestingly enough the *Survey* did not take the actual education of the occupants of the jobs they surveyed, but rather imputed education levels to the type of jobs being done. Consequently, the education base which formed the reference point for all subsequent propjections became inflated. It could be argued that (even if education and experience are mutually reinforcing) there is a trade-off between the two, so that it was necessary to place a minimum education equivalent to the jobs being done. On the basis of this base, the projections were conducted. A rate of national income growth of roughly 8% and a G.D.P. HILMP coefficient of between 1 and 1.5 was used. A more than doubling of demand was envisaged by the end of this decade and supply deficiencies of exceptional magnitude were envisaged. So far there has not been much expansion in the physical facilities of the secondary education system. But plans are being drawn up.

The University of Malawi, in response to the *Manpower Survey*, 1971 has itself carried out an assessment of the demand situation with respect to post secondary-school output for which it is responsible. The *Manpower Survey* had seven occupational categories. These were then reduced to three and a specific education-occupational link was established. Categories 5, 6, and 7 (or the reduced third category) were said to require a Malawi Junior Certificate (or two years post-primary education). It could be argued that category 5, which included bricklayers, mechanics and carpenters did not need a two-year post-primary *education*, but rather needed the *training* to imbibe these skills. The same could be said for a large number of others in the reduced third category, who were expected to go into agricultural occupations. What most of them needed was basic primary education plus training rather than two years of post-primary education and this could be better achieved through vocational and other institutional schemes — the most significant

of these in the Malawi Young Pioneers movement. Training in modern agriculture and other vocations forms an integral part of this highly complex organisation. Thus the *Survey* ignored the major question of labour absorbtion and utilisation of the educated. At present open unemployment in Malawi is not a serious problem — a study of the Blantyre Labour market, by far the largest in the country, threw up unemployment of between 3% to 4%. Another small sample survey, though only tentatively, shows that Junior Certificate leavers are facing some unemployment problems. The *Survey* itself recognised that part of the demand for its reduced category three could be made good from those with less than its minimum (Junior Certificate) educational qualifications. Oddly enough, it did not even consider the large number of Malawians (estimated at 250,000) who are working abroad and some of whom, at least, were likely to meet the expanding demand in the *Survey's* reduced category three. These points are not a criticism of the *Manpower Survey* as such, but indicate the problems faced in any planning exercise as well as throw up some of the points which need to be looked at seriously in any future exercise of this nature.

Coming back to the University of Malawi Manpower Assessment Committee Report (MACR), and demand with respect to the University Output, the University split this demand into two categories: (1i) The demand for HLMP — that is demand for University graduates (this conforms to the *Survey's* Categories 1 and 3 or its reduced category one). (2) The demand for intermediate level manpower (ILMP) — this corresponds to the *Survey's* Categories 2 and 4 or its reduced category two. Though the latter includes demand for the University's diploma output, in addition it also represents demand for other types of post J.C. and post-Malawi Certificate of Education output. There is then this complication and since the MACR was not in a position to mount a survey similar to the *Manpower Surveys*, 1971; it had to fall back on the *Survey* for its basic data.

There are several common points of approach and conclusion between the *Survey* and *MACR*. Both *MACR* and the *Survey* accept the relationship between the rate of growth of National Income and the rate of growth of demand for HILMP. Both used output elasticities of between 1.0 and 1.5 (the MACR reversed the Survey ones on the assumption that productivity may initially drop). The Survey does not give any reason why it used a lower output elasticity for the first half of the decade and a higher one for the second half of the decade. Some manpower planners are surprised by any assumption of a decline in productivity. Basically the reasons for a decline in productivity are the following. The first is the fact that *top* civil service posts, do not tend to increase very much but there is a rapid expansion of the base. The second is

the fact that the ratio of expatriates in employment went down after Independence and since they have a higher opportunity cost and earnings, this is tantamount to a drop in average earnings, which is the same as saying there is a drop in productivity. The third depends on the wages and prices policy. In a country like Malawi, where a policy of restraint is pursued and basic money wage and salaries levels do not increase, inflation will bring about a real fall in these — again, this amounts to the same as a decline in productivity. This, also, ties up with the MACR findings that the partial (or Government in this case) expenditure elasticity of employment.

$$= \frac{\% \text{ increase in Senior staff Employment}}{\% \text{ increase in Government Recurrent Expenditure}}$$

was 1.75.

It is important to bear in mind that this coefficient is likely to alter with changes in any of the following variables (1) the rate of inflation — the higher this is the lower will be real basic wage levels (2) the wages and salaries policy — an increase in basic wages will reduce demand. Government demand will also be affected by its policy with respect to its expenditure and consumption. A policy of consumption restraint will mean lower demand and vice versa. All the same, it is easier to identify demand in the Government sector and much more difficult to do so in the Private Sector. Basically localisation, as might be expected, has proceeded much more rapidly in Government as against the private sector; though the parastatal sector is changing this by its recruitment of University output.

The other point of difference is in the wastage estimates. The wastage factor allowed for in the *Survey* at 2% per annum for diplomates was considered by *MACR* to be too high. An analysis of the civil service staff list for 1972, undertaken by the Committee, indicates that of the 590 graduate-type posts (superscale, Administrative Officer and Professional Officer) filled by Malawians, only 48 were held by persons born before 1930, implying a total wastage before 1980, from retirement alone of 8%: the comparable figure for diplomate-type jobs was 19%. All in all an annual wastage of less than 1% for graduates and of around 1.5% for diplomates seemed valid. This is further reduced, if account is taken of the absorbtion of retired Civil Servants in the Private Sector and the Statutory Bodies. (Civil servants must retire) Though lower wastage rates reduce the demand projections (as against the *Survey* ones), MACR concludes that given the future national income growth rate of 8%, the doubling of demand for University's output by 1980 over 1971 is a reasonable conclusion. As in the case of future aggregate demand discussed in the previous section, the demand for HILMP will depend basically upon the rate of the growth of national income and the wages and salaries policy.

Employment Opportunities and the Utilization and Absorbtion of Graduates and Diplomates

In this section an attempt is made to show where the University's output has gone and whether or not it is being effectively utilized. The *Manpower Survey*, 1971 showed that out of a total stock of 1,706 for categories 1 and 3 (corresponding to University's graduate output) 621 or 36.4 per cent were in Government and 1,085 or roughly two-thirds were in the private (including the parastatal) sector. For categories 2 and 4 (corresponding in part to the University's diploma output) out of a total stock of 14,858, 11,151 or three-quarters were in the Government. It appeared then that future demand for our graduates will be considerably higher in the private sector than in Government. In practice, it has been found that this is not the case. The Manpower Assessment and Utilization Unit (MAUU) of the Ministry of Labour has found that in practice almost two-thirds of the University's 1969, 1970 and 1971 graduates had gone into Government i.e. the position was just the reverse of that which might have been concluded from the Manpower Survey 1971; but for the diplomates the position was the same as that reflected in the *Manpower Survey*. The Economic Planning Division has come to similar indicators of the absorbtion of University Graduates — two-thirds of graduates joined the Government in 1972 and 1973 and one-third the private (including the parastatal) sector. Of the private sector intake, less than half went into the statutory bodies. Thus it appears that, in he short-run at least, the effective demand for University's graduates in Government is considerably higher than the private sector. Basically in the short and medium term, Malawi's Manpower plans should assume that the demand in the private sector for graduates in absolute terms is half that of Government i.e. once the stock of graduates (or jobs which have an education-occupational link with graduates) is known, then the rate of manpower demand growth using past experience and specific expenditure elasticies for Government can be determined. Once an absolute figure has been arrived at for Government, the demand in the private sector can be imputed in absolute terms as half that of Government. This would overcome the flaw in the *Manpower Survey* which estimated demand for the private sector increasing at the same rate as that for Government, when in practice *effective* demand for graduates has been increasing in the private sector at between one-third to one-quarter the rate in Government.

Though it is true as we have said earlier that the *Manpower Survey's* finding of roughly 75% of University's diplomates being in Government employment were confirmed by the MAUU's survey, there is an important finding by MAUU and confirmed by the 1974 MACR survey. This is that practically all the Education, Public Administration and Public Health diplomates do likewise. Most (80%) of the Agriculture diplomates end up in Government. But a considerably smaller proportion of Business Administration and

diplomates go into Government — the MAUU found that roughly 43% of the 1969 and 1970 Engineering diplomates had gone into Government; the MACR found only 36% of the total of 1968 to 1973 diploma outputs had gone into Government (the difference is the result of a very much lower percentage for Government in 1968 and 1973); for Business Administration both the MAUU and MACR found that just over 40% had gone into Government. In a sense, it is easier to plan for Education, Public Administration, Public Health and Agriculture by simply enquiring from the Government what its demand is likely to be. But since the objective must, also, be to provide the private sector with educated manpower, it is to Business Administration (including Accounting) and Engineering (though the private sector is looking here for more practical experience) that one has to look in gauging the effective demand in the private sector.

For examining the demand by industrial sectors and the utilization of graduates and diplomates, data are available from the surveys conducted by the Economic Planning Division (EDP) and MACR. For graduates EPD showed that the main areas of graduates utilization were Education and Health, Agriculture, Forestry and Fishing and Distribution, Banking and Finance. MACR found that the education system has been by far the largest employer of University's graduates. The Agriculture, Forestry and Fishing sector and Distribution, Banking and Finance sector had followed it in that order. For Malawi's manpower planners it provides an indicator of where the effective demand is and what areas of educational output to expand. Another indicator of relative degree of utilization was the response of students to two questions: (1) which of your main subjects do you think are the ones most relevant to your present job and (2) which of the subjects being offered at Chancellor College (not taken by you) do you wish you had taken to help you in your present job? On the basis of the analysis of the answers to these, it was found that Economics, Sociology and Mathematics were ranked (in that order) at the top and Chemistry was ranked at the bottom. This also provides an indicator of the subject areas of expansion within the General Degree programme at the University of Malawi.

For diplomates the EPD showed that the principal sector of demand was Agriculture, Forestry and Fishing followed by Education and Health. Though *MACR* confirmed EPD's finding with respect to Agriculture, Forestry and Fishing, it could not do so with respect to Education, partly because it had treated Education, and Health separately. Agriculture, Forestry and Fishing appears to absorb 50% of our diplomates. There are some further indicators with respect to the utilization and absorbtion of our diplomates. The MAUU survey 1972 indicates that 41% of the Polytechnic diplomates,70% of School of Education, 43% of the Public Administration and 53% of the Bunda diplomates felt they were fully utilised. No firm conclusion can be arrived

at from this. A survey of the Business Studies Diplomates (1968-72) conducted by a Polytechnic Lecturer showed that the principal area of absorbtion for this output was Accounting or Auditing, confirming the effective demand as reflected by advertised vacancies as well as by the large number of Temporary Employment Permit holders, who occupy accounting or auditing posts. A further indicator is the MACR analysis of the two questions similar to those for Chancellor College graduates; there appears to be considerably more demand for Business Studies courses as against Engineering ones. This is also borne out by considerably higher earnings by Business Studies output *vis-a-vis* Engineering. These earnings are not the result of a higher proportion of Business Studies output going into the private sector where earnings are higher, (but where security fringe benefits and promotion aspects are considered by respondents to be lower). The difference is also not the result of better quality school output going into the Business Studies courses.

Conclusion:

This paper by no means exhausts the topics listed, but it provides certain parameters for variables like output elasticities, expenditure elasticities and data with respect to actual experiences of G.D.P. and employment growth rates of the past. It looks at certain surveys conducted by the MAUU, EPD, and MACR and provides some indicators of where the manpower absorbtion is taking place more effectively and where it is likely to do so in future.

MAUU: refers to Manpower Assessment and Utilization Unit of the Ministry of Labour.
EPD: refers to the Economic Planning Division, Office of the President and Cabinet.
MACR: refers to the University of Malawi Manpower Assessment Committee Report.

TABLE 1

STATUTORY MINIMUM DAILY WAGE RATES FOR PERIODS DURING 1947-1969

Period	Southern Region	Blantyre-Limbe	Zomba Lilongwe	All Townships	Other Areas
1947	4d	—	—	—	—
1948-50	5d				
1951-54	7d				
1955-56	—	—	—	1s 4d	1s 0d
1957-58	—	2s 0d	1s 9d	—	1s 3d
1959-60	—	2s 6d	2s 1d		1s 5d
1961-62		3s 0d	2s 6d		1s 8d
1963-64		3s 3d	2s 9d		1s 10d
1965		3s 6d	3s 0d		2s 1d
1966-70		3s 9d	3s 3d		2s 4d
1971 to date		38t	33t		24t

SOURCE: *Annual Report of the Ministry of Labour.*

TABLE TWO A

TOTAL EMPLOYMENT IN MALAWI (A) 1954-1964 (B) 1968-1973: MONETARY AND TOTAL G.D.P. COEFFICIENTS OF EMPLOYMENT

Year	Total Recorded Employment	Percentage Rate of Growth of Employment*	Coefficient of Monetary G.D.P.	Employment* Total G.D.P.
1954	134,300			
1955	143,600	9.4	1.07	1.54
1956	159,000	10.8	1.05	1.26
1957	162,500	2.2	0.17	0.43
1958	163,100	.6	0.09	0.09
1959	161,200	−1.2	−0.20	−0.26
1960	157,200	−2.5	−0.26	−0.46
1961	152,100	−3.4	−1.89	−0.81
1962	141,200	−7.7	−1.22	−1.97
1963	135,600	−4.1	2.28	−1.11
1964	127,800	−6.1	1.69	61.00
1968	134,472			
1969	146,500	8.6	0.61	0.92
1970	159,342	8.8	0.70	0.83
1971	172,281	8.1	0.38	0.37
1972	189,553	10.0	0.61	0.88
1973	215,310	13.7		
1974†	223,066			

SOURCE: (a) *Compendium of Statistics for Malawi 1970* Table 7.1
(b) *Economic Report 1972, Table 8.1 and* (c) *Economic Report* 1975 Table 9.1, p.53.

* Estimated by author

† Estimated figure

TABLE TWO B

HISTORICAL SUMMARY OF GROSS DOMESTIC PRODUCT MONETARY (G.D.P.) AT CURRENT PRICES (—K million)

Year	Monetary G.D.P.			
	Factor Cost		*Subsistence Production*	
	C.S.O.† Series	N.S.O. Series	C.S.O.* Series	N.S.O. Series
1954	32.0		31.4	
1955	34,8		32.4	
1956	38.4		34.6	
1957	43.2		33.4	
1958	46.0		35.8	
1959	49.0		36.8	
1960	53.6		36.8	
1961	54.6		39.6	
1962	58.0		39.8	
1963	57.0		44.6	
1964	55.0	68.4	46.1	76.2
1965		83.2		90.8
1966		95.8		81.6
1967		103.2		84.8
1968		108.4		94.8
1969		152.2		98.5
1970		170.2		101.7
1971		211.5		124.4
1972		241.1‡		132.5‡
1973		284.3‡		144.6‡
1974		359.5‡		175.2‡

SOURCE: (1) N.S.O., 1970

(2) Economic Report, 1975

† In estimating Monetary G.D.P. at factor cost the C.S.O. relied mainly on income tax data. This appears to have resulted in some understatement of the gross output of small enterprises and own-account operations.

* The C.S.O. estimated for *Subsistence Production* at non-retail prices; whereas N.S.O. ones are at retail prices.

‡ Estimates